



COMPANY : PATTERSON PETROLEUM L.P.
LEASE : ALPHA "7"
WELL NO : # 2
FIELD : WILDCAT
COUNTY/STATE : LEA / NEW MEXICO

TEST DATE : 12-08-04
D.S.T. NO. : 1
TEST TKT. NO. : 23036
INVOICE NO. : 21089
ORDER NO. :

FORMATION : MORROW SAND
INTERVAL (ft) : 13514 TO 13534
TOTAL DEPTH (ft) : 13534
ELEVATION (ft) : 4143

HOLE SIZE (in) : 8.750
DRILL PIPE ID (in) : 3.82
DRILL COLLAR ID(in): 2.25
DRILL COLLAR feet : 574

ANCHOR LENGTH (ft): 20
TOOL LENGTH (ft) : 59
TOOL O.D. (in) : 5
PACKER SIZE (in) : 7.50

RECORDER DATA
AK-1KUSTER / ZIPROBE

TOP RECORDER: IN
RECORDER NO. : 50014
CAPACITY (psi): 10000
DEPTH (ft) : 13524
CLOCK NO. : 50014
DURATION (hrs): 99

BOTTOM RECORDER: OUT
RECORDER NO. : 6232
CAPACITY (psi): 6975
DEPTH (ft) : 13531
CLOCK NO. : 17908
DURATION (hrs): 24

MUD PROPERTIES

MUD TYPE : BRINE & STARCH
MUD WT. (#/gal) : 10.0

WATER LOSS (cc) : 6.40
FILTER CAKE (in) : 1/32
VISCOSITY (sec) : 40

CHLORIDE PPM : 140000
RESISTIVITY(ohm-m): .072

EQUIPMENT DATA

CONVENTIONAL : YES
STRADDLE : NO
SELECTIVE ZONE : NO
SAMPLE CHAMBER : YES
GAS ANALYSIS : YES

ROTARY JARS : YES
NO. OF PACKERS : 2
SAFETY JOINT : YES
CIRCULATING SUB : YES
REVERSED OUT : NO

MULTIFLOW : NO
MILEAGE : NO
OPERATOR TIME : YES
OTHER : YES
ZI ELECTRONICS (2)

SUCCESSFUL : YES

PACKER FAILURE : YES

TOOL PLUG : NO

DECIDED NOT TO TEST : NO

FAIL TO REACH BOTTOM : NO

TIME INTERVAL DATA (min)

TOOL OPENED : 9:00 AM

TOTAL TEST TIME: 187

INITIAL FLOW : 26
SECOND FLOW : 72
THIRD FLOW :

INITIAL SHUT-IN: 88
SECOND SHUT-IN: 0
THIRD SHUT IN :

TEST TOOL OPERATOR: TOMMY WILLIAMS

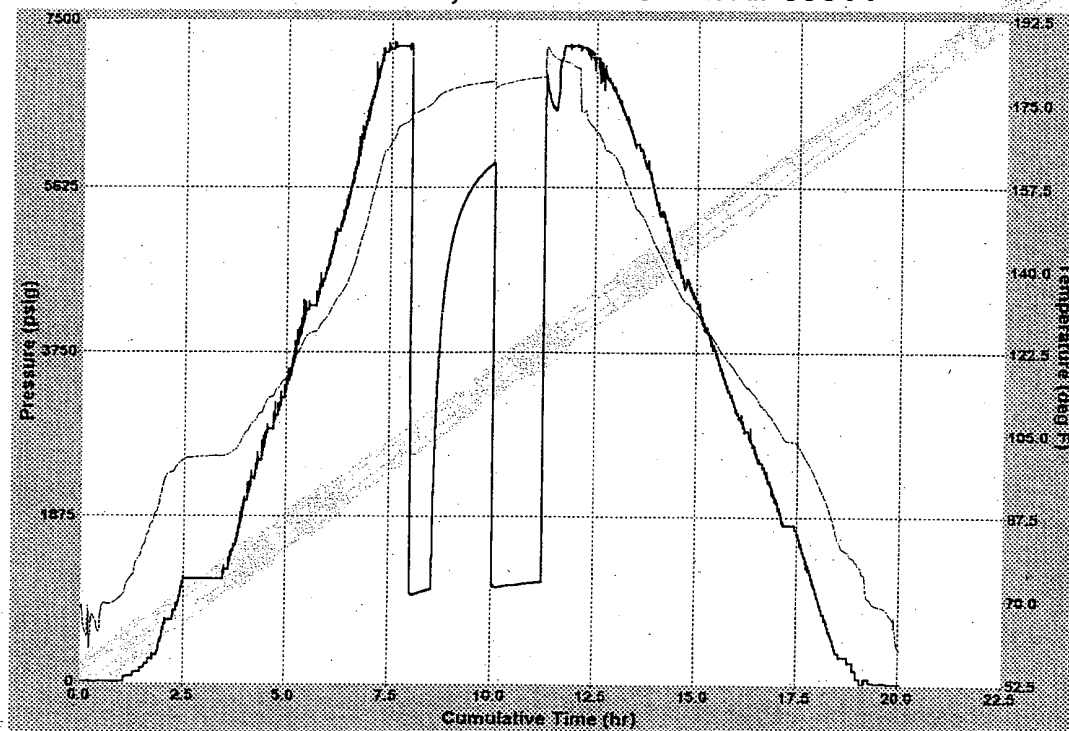


PATTERSON PETROLEUM L.P.

ALPHA "7" # 2
D.S.T. NO. : 1

	CORRECTED READING	FIELD READING
A INITIAL HYDROSTATIC:	7242 PSI	7242 PSI
B-1 INITIAL FIRST FLOW :	999 PSI	999 PSI
B-2 FINAL FIRST FLOW :	1064 PSI	1065 PSI
C FIRST SHUT-IN :	5914 PSI	5914 PSI
D-1 INITIAL SECOND FLOW:	1098 PSI	1093 PSI
D-2 FINAL SECOND FLOW :	1153 PSI	1153 PSI
E SECOND SHUT-IN :	PSI	PSI
H FINAL HYDROSTATIC :	7231 PSI	7231 PSI

RIG TESTERS, INC. RECORDER# 50014



RECOVERY DATA

PIPE RECOVERY B.H. TEMP. (deg F) : 186
(RAN 2430 FT. OF WATER BLANKET-2500 MG/L CHLORIDES)
GAS TO SURFACE 30 MIN. INTO INITIAL SHUT-IN PERIOD
8800 FT. OF TOTAL FLUID
2430 FT. OF WATER BLANKET
6370 FT. OF DRLG. MUD

SAMPLE CHAMBER

1000 LBS. OF PRESSURE
.05 CU. FT. OF GAS
2000 CC'S OF DRLG. MUD

(EXCESSIVE AMOUNT OF DRLG. MUD RECOVERED IS DUE TO
LOST PACKER SEAT 72 MIN. INTO FINAL FLOW PERIOD)

TEST REMARKS

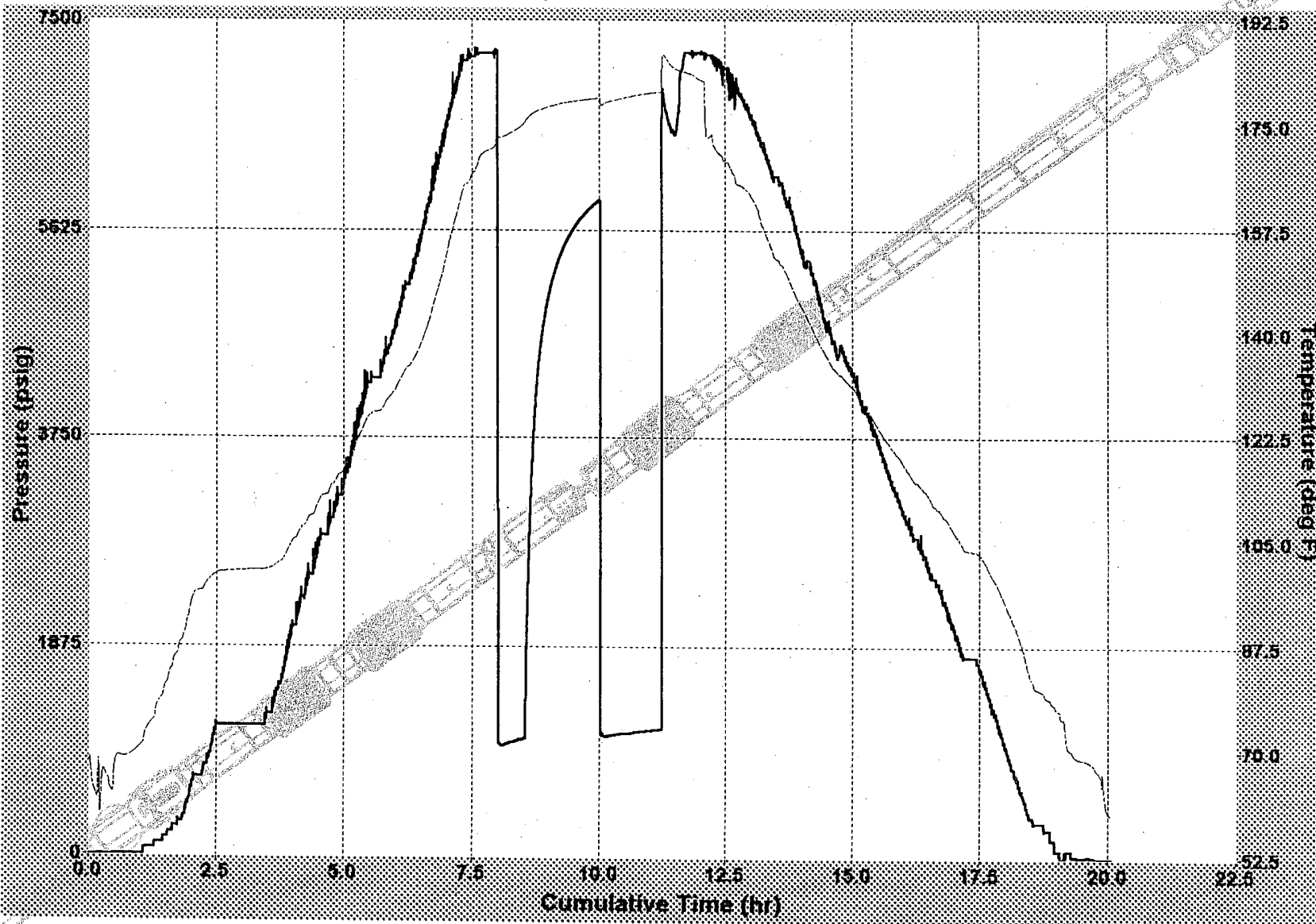
TOOL OPENED WITH VERY WEAK BLOW (1" IN WATER) WHICH INCREASED TO GOOD BLOW (18" IN WATER) ON 1/8" CHOKE & BUILT TO 12.5 OZS. AT END OF THE 30 MIN. FIRST FLOW PERIOD. GAS TO SURFACE 30 MIN. INTO INITIAL SHUT-IN PERIOD REOPENED TOOL ON 1/8" CHOKE WITH 7 OZS.(T.S.T.M.) IN 30 MIN., CHANGED CHOKE TO 1/4" IN 35 MIN., 3.5 LBS.(26 MCFPD) IN 45 MIN., 7 LBS.(31 MCFPD) IN 60 MIN., 12 LBS.(39 MCFPD) IN 72 MIN. & THEN LOST PACKER SEAT FOR THE FINAL FLOW PERIOD.



Company Name PATTERSON PETROLEUM L.P.
Well Name ALPHA "7" #2
Type of Test DST #1 (13514-13534 FT.; MORROW SAND)
Date(s) of Test 12-8-04



RIG TESTERS, INC. RECORDER# 50014

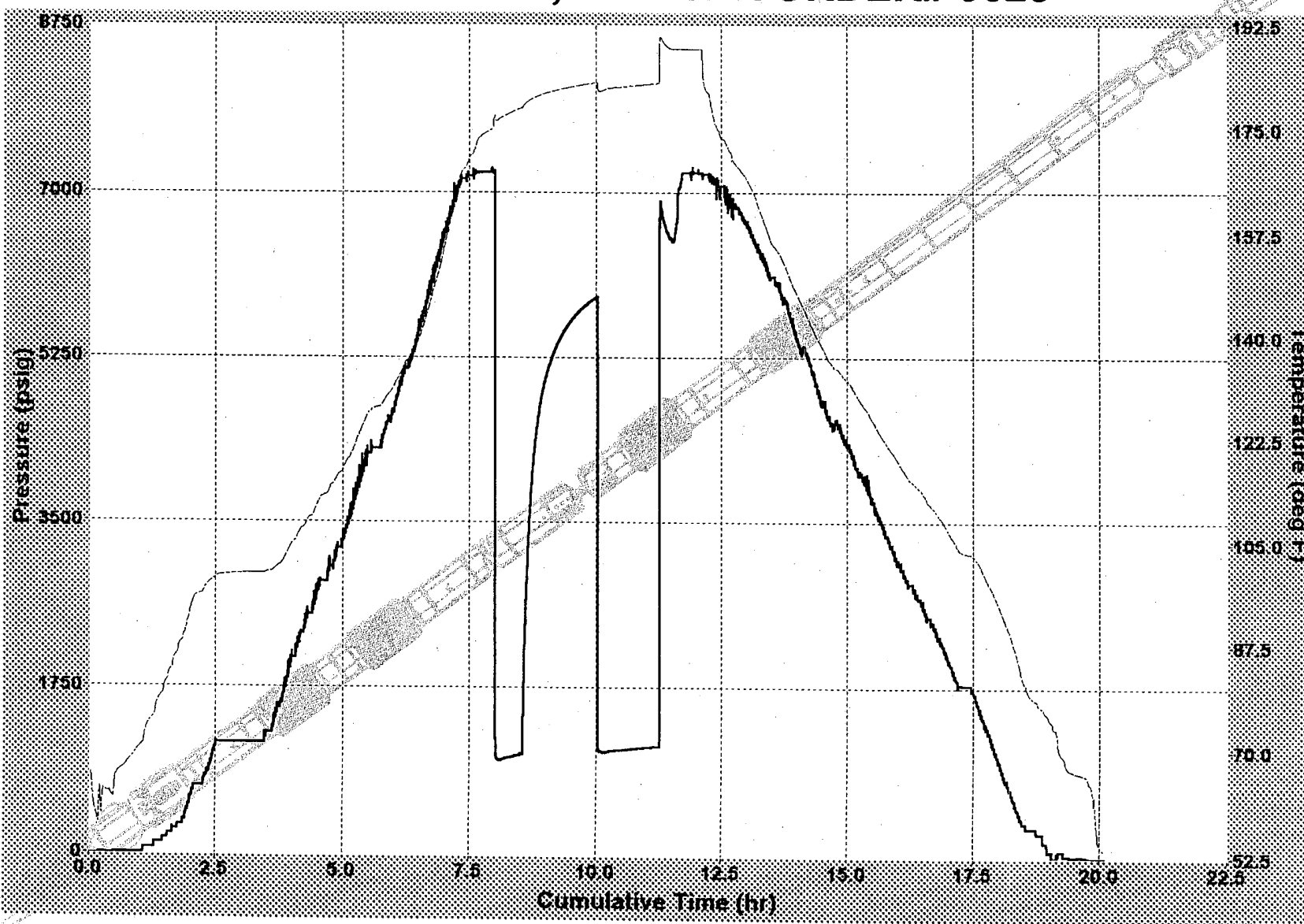




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Date(s) of Test 12-8-04



RIG TESTERS, INC. RECORDER# 9628



INCREMENTAL PRESSURE DATA

RECORDER NO : 50014

RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 13524 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNER) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
FIRST FLOW					
.0	.0			999.20	.00
2.0	2.0			1008.85	9.65
4.0	4.0			1016.65	17.45
6.0	6.0			1023.20	24.00
8.0	8.0			1028.67	29.47
10.0	10.0			1032.40	33.20
12.0	12.0			1035.90	36.70
14.0	14.0			1040.34	41.14
16.0	16.0			1044.75	45.55
18.0	18.0			1050.20	51.00
20.0	20.0			1054.71	55.51
22.0	22.0			1058.23	59.03
24.0	24.0			1064.20	65.00
26.0	26.0			1070.05	70.85
26.5	26.5			1064.40	65.20
FIRST SHUT-IN					
26.5	26.5	.00	.000	1064.40	.00
27.0	26.5	.50	53.920	1333.48	269.08
27.5	26.5	1.00	27.460	1594.76	530.36
28.0	26.5	1.50	18.640	1833.10	768.70
28.5	26.5	2.00	14.230	2026.06	961.66
29.0	26.5	2.50	11.584	2204.13	1139.73
29.5	26.5	3.00	9.820	2360.20	1295.80
30.0	26.5	3.50	8.560	2491.85	1427.45
30.5	26.5	4.00	7.615	2634.99	1570.59
31.0	26.5	4.50	6.880	2760.90	1696.50
31.5	26.5	5.00	6.292	2872.71	1808.31
32.5	26.5	6.00	5.410	3108.20	2043.80
33.5	26.5	7.00	4.780	3307.63	2243.23
34.5	26.5	8.00	4.308	3489.16	2424.76
35.5	26.5	9.00	3.940	3659.60	2595.20
36.5	26.5	10.00	3.646	3804.06	2739.66
38.5	26.5	12.00	3.205	4058.00	2993.60
40.5	26.5	14.00	2.890	4259.58	3195.18
42.5	26.5	16.00	2.654	4430.58	3366.18
44.5	26.5	18.00	2.470	4574.90	3510.50
46.5	26.5	20.00	2.323	4695.29	3630.89
49.5	26.5	23.00	2.150	4849.93	3785.53
52.5	26.5	26.00	2.018	4978.18	3913.78
55.5	26.5	29.00	1.912	5086.97	4022.57
58.5	26.5	32.00	1.827	5180.43	4116.03
61.5	26.5	35.00	1.756	5260.49	4196.09
64.5	26.5	38.00	1.696	5334.23	4269.83
67.5	26.5	41.00	1.645	5398.53	4334.13

INCREMENTAL PRESSURE DATA

RECORDER NO : 50014

RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 13524 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNER) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
FIRST SHUT-IN					
70.5	26.5	44.00	1.601	5456.00	4391.60
73.5	26.5	47.00	1.563	5507.55	4443.15
76.5	26.5	50.00	1.529	5555.01	4490.61
79.5	26.5	53.00	1.499	5596.96	4532.56
82.5	26.5	56.00	1.473	5636.19	4571.79
85.5	26.5	59.00	1.448	5671.91	4607.51
88.5	26.5	62.00	1.427	5704.87	4640.47
91.5	26.5	65.00	1.407	5735.55	4671.15
94.5	26.5	68.00	1.389	5763.79	4699.39
97.5	26.5	71.00	1.373	5790.22	4725.82
100.5	26.5	74.00	1.358	5814.95	4750.55
103.5	26.5	77.00	1.344	5838.07	4773.67
106.5	26.5	80.00	1.331	5859.77	4795.37
109.5	26.5	83.00	1.319	5880.27	4815.87
112.5	26.5	86.00	1.308	5899.49	4835.09
115.0	26.5	88.50	1.299	5914.90	4850.50
SECOND FLOW					
116.8	28.3			1098.00	.00
119.8	31.3			1094.00	-4.00
122.8	34.3			1089.00	-9.00
125.8	37.3			1094.70	-3.30
128.8	40.3			1099.00	1.00
131.8	43.3			1102.40	4.40
134.8	46.3			1106.30	8.30
137.8	49.3			1108.80	10.80
140.8	52.3			1111.90	13.90
143.8	55.3			1113.90	15.90
146.8	58.3			1116.10	18.10
149.8	61.3			1114.90	16.90
152.8	64.3			1120.40	22.40
155.8	67.3			1123.80	25.80
158.8	70.3			1126.20	28.20
161.8	73.3			1130.20	32.20
164.8	76.3			1133.30	35.30
167.8	79.3			1136.40	38.40
170.8	82.3			1139.00	41.00
173.8	85.3			1141.60	43.60
176.8	88.3			1144.10	46.10

INCREMENTAL PRESSURE DATA

RECORDER NO : 50014

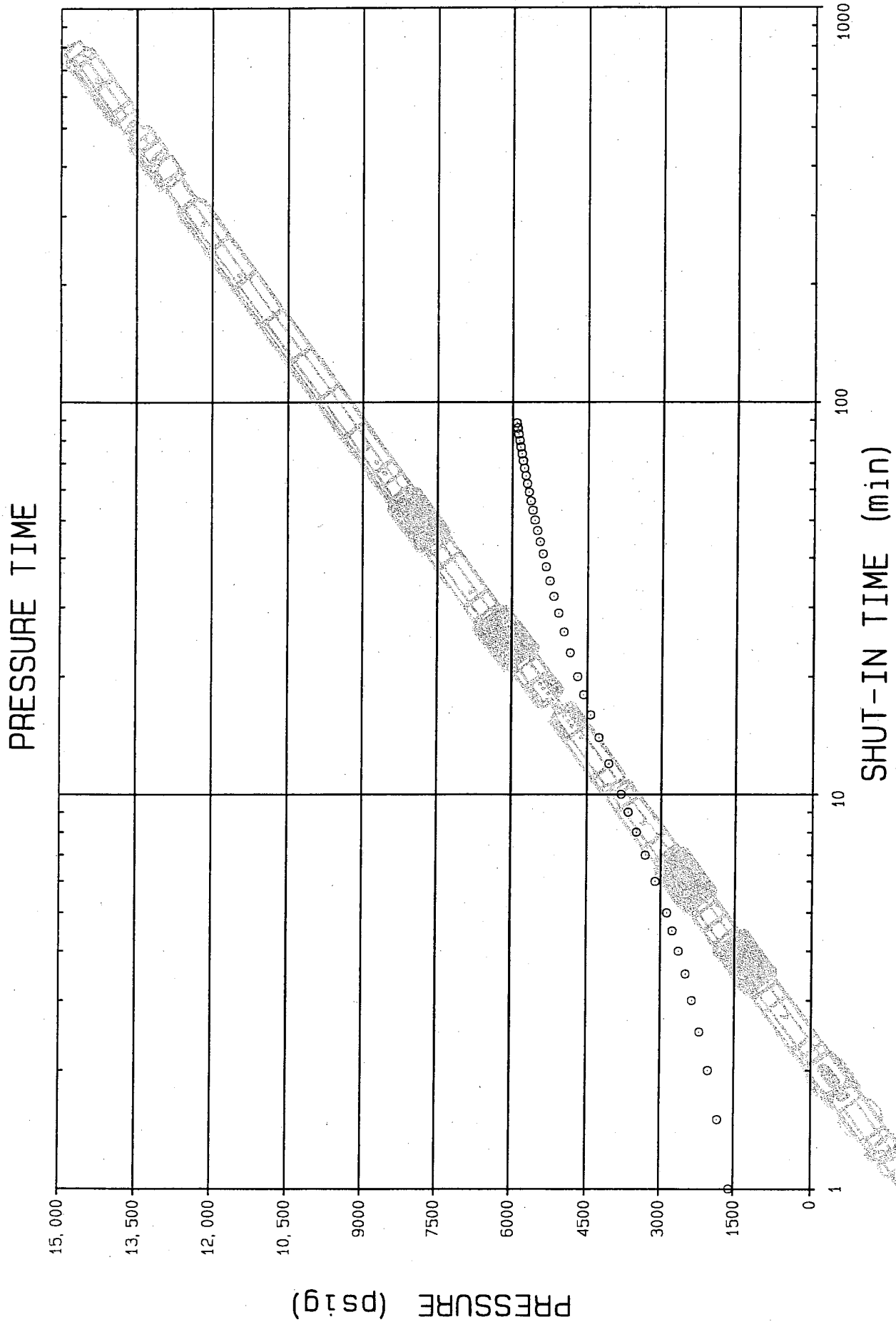
RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 13524 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNER) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
SECOND FLOW					
179.8	91.3			1146.00	48.00
182.8	94.3			1148.30	50.30
185.8	97.3			1150.90	52.90
188.5	100.0			1153.70	55.70

REMARKS

THE INCREMENTAL DATA, PLOTS AND ANALYSIS ARE FROM THE ELECTRONIC RECORDER
(PLEASE REFER TO DERIVATIVE DIAGNOSTICS ANALYSIS FOR FURTHER INFORMATION)
PRESSURE ASCII FILES ARE AVAILABLE ON DISKETTE UPON REQUEST



○ FIRST SHUT-IN

PATTERSON PETROLEUM L.P.

ALPHA "7" # 2



Well Test Report

RigTesters, Inc.
ABILENE - MIDLAND - GRAHAM
PATTERSON PETROLEUM L.P. ALPHA "7" #2

Well identification

Well ID	ALPHA "7" #2	Well location	W. LOVINGTON
County/District	LEA	State, Country	NEW MEXICO
Company	PATTERSON PETR.	Division	SNYDER

Fluid properties

Prod/Inj fluid	GAS	GOR	
Water cut	0%	Condensate yield	UNKNOWN
API gravity		Gas spec. grav.	0.7
Viscosity	3.0181e-2 cp	Pseudo-critical T	382.97 deg R
Pseudo-critical P	664.37 psia	H2S mole fraction	UNKNOWN
CO2 mole fraction	UNKNOWN	N2 mole fraction	UNKNOWN
Compressibility(t)	58.616 e-6/psi	Formation vol factor	0.55932 RB/MSCF

Reservoir properties

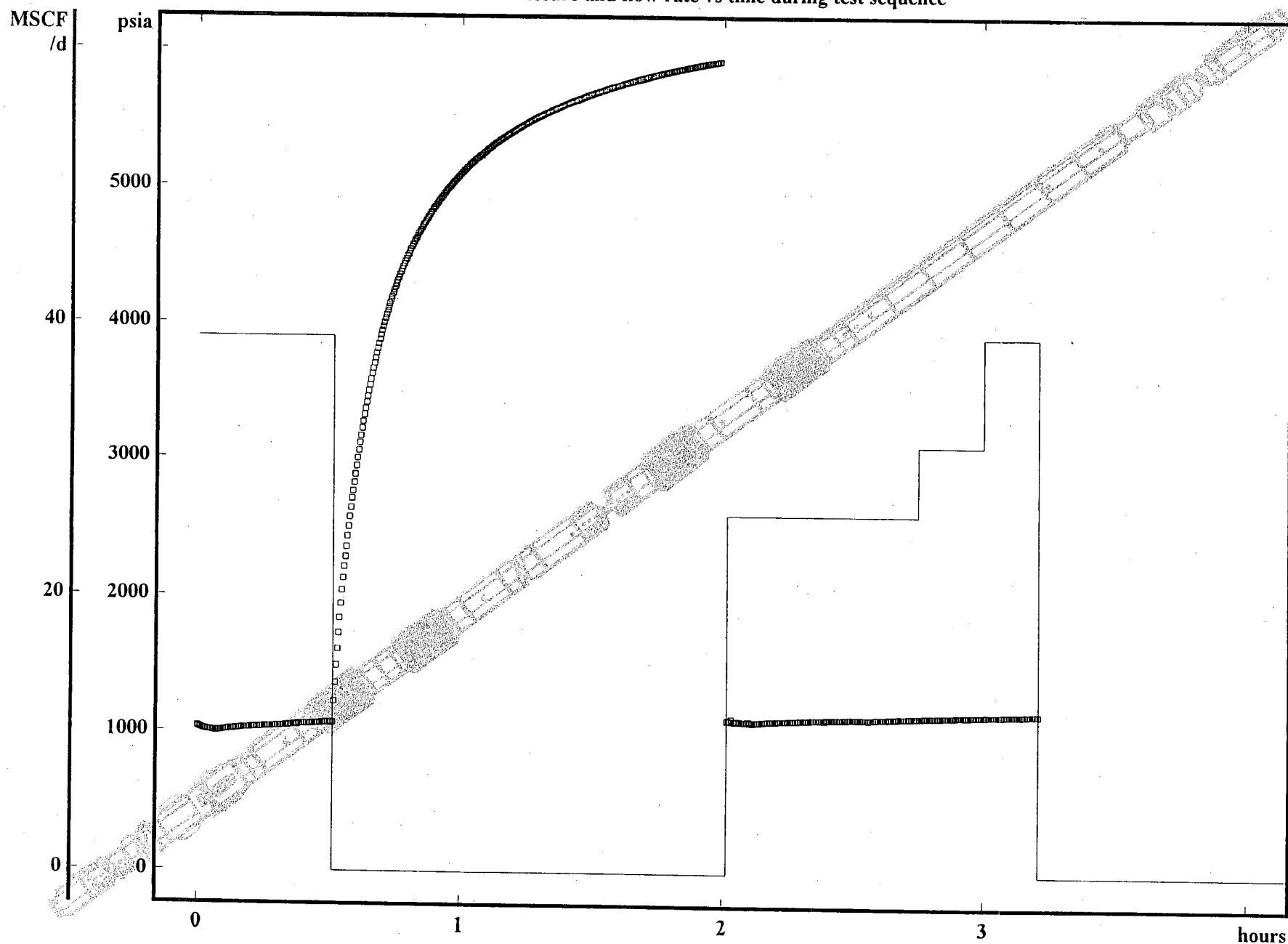
Porosity	0.18 frac	Formation thickness	7 ft
Wellbore radius	0.36458 ft	Prod-observer distance	N/A
Water-Oil Contact	UNKNOWN	Gas-Oil Contact	N/A
Gas-Water Contact	N/A	Rock compressibility	
Reservoir temperature	186 deg F	Pressure for properties	6504 psia

Comments

THE DERIVATIVE INDICATES A HOMOGENEOUS RESERVOIR WITH LOW PERMEABILITY AND NO (NEGATIVE) SKIN. THE SHUT-IN PERIOD WAS IN TRANSITION TOWARDS BUT HAD NOT QUITE ACHIEVED TRUE RADIAL FLOW WHICH MAY MAKE CALCULATIONS (EXTRAPOLATION, PERMEABILITY AND SKIN) UNDER THIS CONDITION SUBJECT TO QUESTION. HOWEVER, A REGRESSION VERIFIED MODEL ANALYSIS WAS PERFORMED IN AN ATTEMPT TO BETTER DETERMINE FORMATION PARAMETERS AND THE REGRESSION SHOWS A GOOD FIT AND CONFIDENCE INTERVALS (MARGIN OF ERROR) SHOWN NEXT TO MAJOR PARAMETERS. THE FIXED PARAMETERS USED WERE AN EST. 18% POROSITY, 7 FT. OF NET PAY REPORTED AND A GAS FLOWING RATE OF 39 MCFPD MEASURED AT SURFACE THROUGH A 1/4" CHOKE AT END OF THE FINAL FLOW. THE TOTAL RADIUS OF INVESTIGATION CALCULATED TO ONLY 4 FT. FROM WELLBORE. * THE GAS PRODUCTION RATE WOULD DEPEND UPON TOTAL AMOUNT OF FLUID PRODUCED. * THE OVERALL TEST INDICATES A RESERVOIR WITH GOOD POROSITY BUT IS ASSOCIATED WITH VERY LOW PERMEABILITY.

PATTERSON PETROLEUM L.P. ALPHA "7" #2

Pressure and flow rate vs time during test sequence

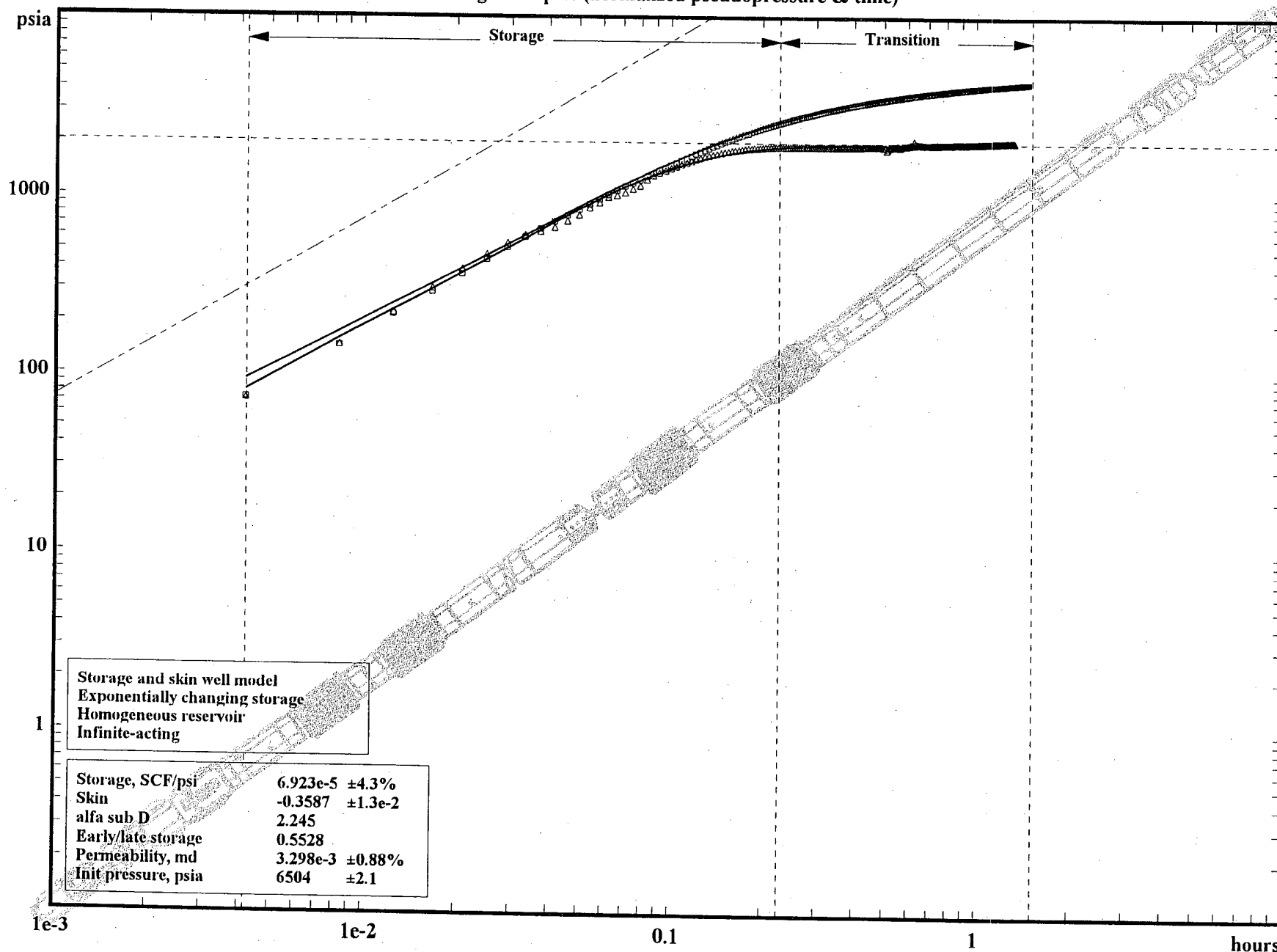


DST #1 13514 - 13534 FT. MORROW SAND



PATTERSON PETROLEUM L.P. ALPHA "7" #2

Diagnostic plot (normalized pseudopressure & time)



SHUT-IN PERIOD DST#1 REGRESSION VERIFIED MODEL



PATTERSON PETROLEUM L.P. ALPHA "7" #2
Variable rate Horner plot (normalized pseudopressure & time)

